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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,832	12/04/2003	Frans Ejner Rvan Hansen	12845.0002USC1	7440

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EXAMINER

MERLINO, AMANDA H

ART UNIT PAPER NUMBER

2877

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/727,832	Applicant(s) HANSEN ET AL.	
	Examiner Amanda H Merlino	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 58-91 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 58-91 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/403,958.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### ***Claim Objections***

Claim 64 objected to because of the following informalities: Claim 64 is dependent on claim 6 which is a previously canceled claim. Appropriate correction is required.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 58-91 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8, 11-13, and 17-36 of U.S.

Patent No. 6,710,879. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach of a method for the assessment of at least one parameter of a species of biological particles in a liquid analyte material, comprising applying a volume of a liquid sample representing the analyte material and comprising a plurality of particles, or a plurality of particles isolated from a volume of liquid sample representing the analyte material, to sample compartment from which

sample compartment electromagnetic signals from the sample in the compartment can pass to the exterior, performing one exposure of electromagnetic signals from the sample onto an array of active detection elements forming an image of the plurality of particles, detecting the image as intensities by individual active detection elements, processing the intensities in order to identify the image of electromagnetic signals from the species of biological particles as distinct from representations of electromagnetic signals from background signals correlating the results of the processing to the at least one parameter of the liquid analyte material: the only difference being that the claims in the present application claim the ratio of a linear dimension of the image on the array of detection elements to the original linear dimension in the sample compartment being under 10:1 and the claims in U.S. patent 6,710,879 No. claim the ratio of a linear dimension of the image on the array of detection elements to the original linear dimension in the sample compartment being from 40:1 to 1:10 when the size of the particles is between  $1/3\ \mu\text{m}$  and  $3\ \mu\text{m}$ , and from 3:1 to 1:100, when the size of the particles is between  $3\ \mu\text{m}$ , and  $100\ \mu\text{m}$ . The ratio being smaller than 10:1 is within the range of either 40:1 to 1:10 and/or 3:1 to 1:100 and since the ratio is broader in the present claims, it would have been obvious to one of ordinary skill in the art to utilize the best ratio to make a more accurate measurement.

Claims 58-69, 71-74 and 81-85 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8, 11-13, 17-24 and 36 of U.S. Patent No. 6,731,100. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach of a method for the

assessment of at least one parameter of a species of biological particles in a liquid analyte material, comprising applying a volume of a liquid sample representing the analyte material and comprising a plurality of particles, or a plurality of particles isolated from a volume of liquid sample representing the analyte material, to sample compartment from which sample compartment electromagnetic signals from the sample in the compartment can pass to the exterior, performing one exposure of electromagnetic signals from the sample onto an array of active detection elements forming an image of the plurality of particles, detecting the image as intensities by individual active detection elements, processing the intensities in order to identify the image of electromagnetic signals from the species of biological particles as distinct from representations of electromagnetic signals from background signals correlating the results of the processing to the at least one parameter of the liquid analyte material: the only difference being that the claims in the present application claim the ratio of a linear dimension of the image on the array of detection elements to the original linear dimension in the sample compartment being under 10:1 and the claims in U.S. patent 6,731,100 claim the ratio being between 3:1 and 1:00. The ratio being smaller than 10:1 covers the range of 3:1 to 1:100 and since the ratio is broader in the present claims, it would have been obvious to one of ordinary skill in the art to utilize the best ratio to make a more accurate measurement. The other minor difference is that the present claims teach of measuring bacteria in a liquid whereas the claims in U.S. Patent No. 6,731,100 teach of measuring somatic cells in a milk. At the time of the invention, it would have been obvious to one of ordinary skill in the art to measuring bacteria in a

liquid instead of somatic cell in liquid milk since one of ordinary skill in the art would have seen the advantages of measuring bacteria in other kinds of liquids using the teachings above to gain the same advantages.

### ***Allowable Subject Matter***

Claims 58-91 would be allowable upon the filing of a terminal disclaimer to overcome the double patenting rejections.

As to claims 58-91, the prior of record, taken alone or in combination, fails to disclose or render obvious a method for assessment of at least one quantity parameter and/or at least one quality parameter of bacteria in a liquid comprising the steps of exposing, onto an array of active detection elements, at least one-dimensional spatial representation of electromagnetic signals wherein the spatial representation exposed onto the array of detection elements is subject to such a linear arrangement that the ratio of the image of a linear dimension on the array of detection elements to the original linear dimension in exposing domain is smaller than 10:1, in combination with the rest of the limitations of claim 58.

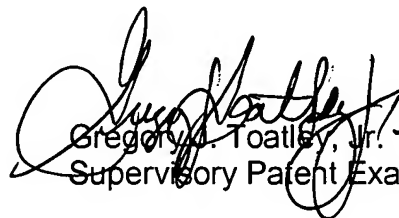
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda H Merlino whose telephone number is 571-272-2421. The examiner can normally be reached on Monday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amanda H Merlino *ahm*  
Patent Examiner  
Art Unit 2877  
September 29, 2004

  
Gregory J. Toatley, Jr.  
Supervisory Patent Examiner 2877